

What is claimed is:

1 ^{B1}
Sub 1

1. A method comprising:

2 generating data associated with a source video sequence,
3 at least a first body of data being sufficient to permit
4 generation of a first viewable video sequence of lesser
5 quality than is represented by the source video sequence, and
6 at least a second body of data being sufficient to enhance the
7 quality of the first viewable video sequence generated from
8 the first body of data, and

9 adjusting the second body of data to give transmission
10 priority to different units of the second body of data,
11 according to the amount of detail within the units.

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1 2. The method of claim 1, wherein the units of the
2 second bodies of data include a block of video data.

3 3. The method of claim 1, further comprising
4 determining a detail by processing the data with a discrete
5 cosine transform, the amount of detail corresponding to the
6 coefficients of the higher-frequency terms.

1 4. The method of claim 3, further comprising giving
2 generally higher transmission priority to lower-frequency
3 terms and generally lower transmission priority to higher-
4 frequency terms.

1 5. The method of claim 1, further comprising
2 determining a transmission priority according to a frequency
3 weighting matrix.

1 6. The method of claim 1, further comprising
2 determining a transmission priority according to an amount of
3 data lost in the first body of data during the first body's
4 generation.

1 7. The method of claim 1, further comprising, following
2 reception of the second body of data, undoing the operation
3 that adjusted the second body of data.

1 8. An article comprising a computer-readable medium
2 which stores computer-executable instructions, the
3 instructions causing a computer to:

4 generate data associated with a source video sequence, at
5 least a first body of data being sufficient to permit
6 generation of a viewable video sequence of lesser quality than
7 is represented by the source video sequence, and at least a
8 second body of data being sufficient to enhance the quality of
9 the viewable video sequence generated from the first body of
10 data, and

11 adjust the second body of data to give transmission
12 priority to different units of the second body of data,
13 according to the amount of detail within the units.

14 9. The article of claim 8, wherein the units of the
15 second bodies of data include a block of video data.

1 10. The article of claim 8, the instructions further
2 causing the computer to determine a detail by processing the
3 data with a discrete cosine transform, the amount of detail
4 corresponding to the coefficients of the higher-frequency
5 terms.

1 11. The article of claim 10, the instructions further
2 causing the computer to give generally higher transmission

3 priority to lower-frequency terms and generally lower
4 transmission priority to higher-frequency terms.

1 12. The article of claim 8, the instructions further
2 causing the computer to determine a transmission priority
3 according to a frequency weighting matrix.

4 13. The article of claim 8, the instructions further
5 causing the computer to determine a transmission priority
6 according to an amount of data lost in the first body of data
7 during the first body's generation.

8 14. The article of claim 8, the instructions further
9 causing the computer, following reception of the second body
2 of data, to undo the operation that adjusted the second body
3 of data.
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1 15. The method for encoding a video sequence of
2 pictures, comprising:

3 applying lossy encoding to the sequence of pictures to
4 produce a first body of data being sufficient to permit

5 generation of a viewable video sequence of lesser quality than
6 is represented by the source video sequence,

7 deriving a second body of data being sufficient to
8 enhance the quality of the viewable video sequence generated
9 from the first body of data, and

10 adjusting the second body of data to give transmission
11 priority to different units of the second body of data,
12 according to the amount of detail within the units.

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1 18. The method of claim 15, further comprising
2 determination of transmission priority according to a
3 frequency weighting matrix.

1 19. The method of claim 15, further comprising
2 determination of transmission priority according to the amount
3 of data lost in the first body of data during the first body's
4 generation.

20. The method of claim 15, further comprising adjusting
the second body of data in a manner that the adjustment may be
undone by a decoder.

1 21. An article comprising a computer-readable medium
2 which stores computer-executable instructions for encoding a
3 video sequence of pictures, the instructions causing a
4 computer to:

5 apply lossy encoding to the sequence of pictures to
6 produce a first body of data being sufficient to permit
7 generation of a viewable video sequence of lesser quality than
8 is represented by the source video sequence,

9 derive a second body of data being sufficient to enhance
10 the quality of the viewable video sequence generated from the
11 first body of data, and

12 adjust the second body of data to give transmission
13 priority to different units of the second body of data,
14 according to the amount of detail within the units.

22. The article of claim 21, the instructions further
causing the computer to determine the detail by processing the
data with a discrete cosine transform, the amount of detail
corresponding to the coefficients of the higher-frequency
terms.

23. The article of claim 22, the instructions further
causing the computer to give generally higher transmission
priority to lower-frequency terms and generally lower
transmission priority to higher-frequency terms.

24. The article of claim 21, the instructions further
causing the computer to determine of transmission priority
according to a frequency weighting matrix.

1 25. The article of claim 21, the instructions further
2 causing the computer to determine of transmission priority
3 according to the amount of data lost in the first body of data
4 during the first body's generation.

1 26. The article of claim 21, the instructions further
2 causing the computer to adjust the second body of data in a
3 manner that the adjustment may be undone by a decoder.

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27. A system for encoding and decoding a video sequence
of pictures, comprising:

an encoder capable of

generating a first body of data sufficient to permit
5 generation of a viewable video sequence of lesser quality
6 than is represented by the source video sequence,

7 generating a second body of data being sufficient to
8 enhance the quality of the viewable video sequence
9 generated from the first body of data,

10 adjusting the second body of data to give
11 transmission priority to different units of the second

body of data, according to the amount of detail within
the units, and

a decoder capable of undoing the adjustment made by the
encoder.

28. The system of claim 27, wherein the decoder is
further capable of performing decoding operations on the first
body of data, including variable length decoding, inverse
quantization, inverse scanning, inverse discrete cosine
transformation or motion compensation.

29. The system of claim 27, wherein the decoder is
further capable of performing decoding operations on the
second body of data, including variable length decoding,
inverse quantization or inverse discrete cosine
transformation.

30. The system of claim 27, wherein the decoder is
further capable of combining the first body with the second
body of data.